

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

In the Office Action, the Examiner objects to the errors in the specification. In response, the specification has been amended to correct any grammatical errors therein. Accordingly, it is respectfully requested that the objection to the specification be withdrawn.

In the Official Action, the Examiner rejects claims 11 and 12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner argues that the phrase "the driving member is made a member for" is unclear. In response, claim 11 has been amended and claim 12 has been canceled. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 11 and 12 under 35 U.S.C. § 112, second paragraph.

In the body of the prior art rejections, the Examiner also argues that claims 1, 7, and 10 are not clear because there is no antecedent basis for the liquid being held "on" the holding member. In response, claims 1 and 7 have been amended and claim 10 has been canceled.

In the body of the prior art rejections, the Examiner also argues that claims 5, 6, and 9 recite method steps and do not further limit the apparatus in their corresponding base claims. In response, claims 5 and 6 have been amended to recite structural features that further limit the apparatus of their base claims and claim 9 has been canceled.

With regard to the prior art rejections, the Examiner rejects claims 1-3 and 5-6 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,957,167 to Feygin (hereinafter "Feygin"). Additionally, the Examiner rejects claims 1-10 and 13-14 under 35

U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,309,891 to Shalon et al., (hereinafter "Shalon"). Lastly, the Examiner rejects claims 1-3 and 7-14 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,551,557 to Rose et al., (hereinafter "Rose").

In response, independent claims 1, 7, and 14 have been amended to clarify their distinguishing features. Furthermore, claims 2, 9, 10, 12, and 13 have been canceled. The dependent claims have also been amended to be consistent with their amended base claims and to improve their form and readability.

A feature of the present invention is as follows: The liquid holding member is washed by sending the washing water into the liquid holding member, after the sending of the washing water is stopped, the washing water held in the inner portion of the liquid holding member is dispensed from one end thereof. A given amount of the air is then drawn in the inner portion of the liquid holding member from the one end, thereby forming an air layer in the inner portion of the liquid holding member. The liquid is then sucked into the inner portion of the liquid holding member from the one end so as to make the washing water in a separated state through the air layer. A minute amount of the liquid held in the liquid holding member is then dispensed from the one end thereof by moving the liquid holding member forward and backward along a dispensing direction. Independent claims 1, 7, and 14 have been amended to clarify such a feature.

As a result, the apparatus and methods as recited in independent claims 1, 7, and 14 lead to advantages over the prior art. Specifically, after dispensing the washing water from the liquid holding member once, air is sucked in the liquid holding member, thereby forming the air layer. The washing water remaining in the liquid holding member or in the conduit to which the sending of the washing water is performed, and for example the liquid

including the sample therein, are separated through the air layer by sucking the liquid afterwards. Therefore, a malfunction is prevented at the inspection time of mixing the washing water and the liquid.

On the contrary, in Feygin, the fluid-dispensing member for holding and dispensing a minute amount of the liquid and the feature of dispensing the liquid held in the fluid-dispensing member by moving the fluid-dispensing member forward and backward, are described. That is, in Feygin, the liquid retention member, the driving means, and the dispensing operation due to the forward and backward movement of the liquid holding member by the driving means in the present invention, are disclosed.

However, in Feygin, there is no disclosure regarding the feature that "the liquid holding member is washed by sending the washing water into the liquid holding member, after the sending of the washing water is stopped, the washing water held in the inner portion of the liquid holding member is dispensed from one end, then, the given amount of the air is drawn in the inner portion of the liquid holding member from the one end, thereby forming an air layer in the inner portion of the liquid holding member, then, the liquid is sucked into the inner portion of the liquid holding member from the one end thereof so as to make the washing water in the separated state through the air layer" as is recited in independent claims 1, 7, and 14.

Feygin does not contemplate the washing water being sent in the inner portion of the fluid-dispensing member, and the liquid dispensing member being washed by the washing water. Therefore, there is no necessity for consideration as to the mixture of the liquid and the washing water.

Moreover, in Shalon, the printing device for holding and dispensing the minute amount of the liquid, and the device for dispensing the fluid held in the printing device by moving the forward and backward movement of the printing device, are described. Particularly, Shalon discloses in Fig. 19, the feature that the printing device is communicated to water etc. by passing tubing through the printing device and by opening a two-way valve provided in the tubing.

However, Shalon does not disclose "the liquid holding member is washed by sending the washing water into the liquid holding member, after the sending of the washing water is stopped, the washing water held in the inner portion of the liquid holding member is dispensed from the one end, then, the given amount of the air is drawn in the inner portion of the liquid holding member from the one end thereof, thereby forming air layer in the inner portion of the liquid holding member, then, the liquid is sucked into the inner portion of the liquid holding member from the one end thereof so as to make the washing water in the separated state through the air layer" as is recited in independent claims 1, 7, and 14.

Shalon does not contemplate sucking the liquid from the one end to dispense the fluid of the printing device, and there is no necessity for consideration as to the mixture of the liquid sucked from the one end of the printing device and the washing water.

In addition, Rose discloses the dispenser for holding and dispensing a minute amount of liquid, and a device for dispensing the fluid held in the dispenser by a forward and backward movement of the dispenser. Particularly, at column 16, Rose teaches the system fluid included in the reservoir is sent in the dispenser, a given amount of air is drawn in the inner portion of the dispenser from the one end thereof, the plane that the system fluid touches

the aspirated source fluid is decreased, and the mixing of the system fluid and the aspirated source fluid is decreased.

However, in Rose, there is no disclosure that "the liquid holding member is washed by sending the washing water into the liquid holding member, after the sending of the washing water is stopped, the washing water held in the inner portion of the liquid holding member is dispensed from one end thereof, then, the given amount of the air is drawn in the inner portion of the liquid holding member from the one end thereof, thereby forming air layer in the inner portion of the liquid holding member, then, the liquid is sucked into the inner portion of the liquid holding member from the one end thereof so as to make the washing water in the separated state through the air layer" as is recited in independent claims 1, 7, and 14.

In fact, in the apparatus of Rose, there is a possibility that "the mixture of system fluid and aspirated source fluid" occurs. In the apparatus of the present invention, as recited in independent claims 1, 7, and 14, after the washing water is dispensed from the liquid holding member, air is sucked in the liquid holding member, thereby forming the air space, and afterwards, the liquid is sucked. Thus, the present invention is advantageous over the apparatus of Rose because the washing water remaining in the liquid holding member or in the conduit to which the sending of the washing water is performed, and for example the liquid including the sample therein, are separated through the air layer by sucking the liquid afterwards, and the mixing of both can be prevented with a higher certainty.

Therefore, in view of the above, none of the references cited by the Examiner teach or suggest the feature that "air is sucked in the liquid holding member after the washing

water is dispensed from the liquid holding member, thereby forming the air layer" as is recited in independent claims 1, 7, and 14.

With regard to the rejection of claims 1-14, under 35 U.S.C. §§ 102(b) and 102(e), an apparatus and method having the features discussed above and as recited in amended independent claims 1, 7, and 14, is nowhere disclosed in either Feygin, Shalon, and Rose. Since it has been decided that "anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim,"¹ independent claims 1, 7, and 14 are not anticipated by any one of Feygin, Shalon, and Rose. Accordingly, independent claims 1, 7, and 14 patentably distinguish over each of Feygin, Shalon, and Rose. Claims 3-6, 8, and 11 being dependent upon claims 1 and 7, are thus allowable therewith, claims 2, 9, 10, 12, and 13 being canceled. Consequently, the Examiner is respectfully requested to withdraw the rejection of claims 1-14 under 35 U.S.C. §§ 102(b) and 102(e).

Lastly, new claims 15-27 have been added. New claims 15-26 are dependent upon claims 1 and 7 and are at least allowable therewith. New claim 27 is independent and is allowable for the same reasons as set forth above with regard to claims 1, 7, and 14. New claims 15-27 are fully supported in the original disclosure. Therefore, no new matter has been entered into the disclosure by way of new claims 15-127.

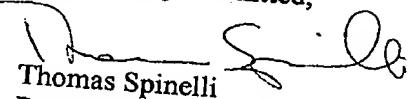
In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone

¹ Lindeman Maschinenfabrik GMBH v. American Hoist and Derrick Company, 730 F.2d 1452, 1458; 221 U.S.P.Q. 481, 485 (Fed. Cir., 1984).

conference with
the Examiner is

it Applicant's attorneys would be advantageous to the disposition of this case,
requested to telephone the undersigned.

Respectfully submitted,


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